EES engineering and environmental services

April 2, 1993

Mr. Waddell Waters
North Carolina DEM
8025 North Point Blvd, Suite 100
Winston Salem, North Carolina 27106-3203

Dear Mr. Waters:

Engineering and Environmental Services (EES) is submitting this work plan to further assess the horizontal and vertical extent of groundwater contamination at the Harold Hall Property located at 108 West Main Street in Jamestown, North Carolina. This work plan was requested in the Notice of Violation issued to Mr. Harold Hall on March 1, 1993.

Releases were detected from the Underground Storage Tank (UST) systems at the Hall property during closure activities in June of 1992. These tanks were known to store only petroleum products. EES disputes the State's opinion that Mr. Hall is responsible for the organic compounds detected in the groundwater that are not related to the retail sales of petroleum products. These compounds are listed below.

1,2-Dichloroethane	Bromomethane
Chloroethane	Chloromethane
Dichlorodifluoromethane	Tetrachloroethene
Vinyl Chloride	Trichloroethene

Several of these chlorinated compounds are commonly used in dry cleaning operations. Upgradient (topographically and hydrogeologically) of the Hall property is a dry cleaning facility. This dry cleaners was formerly a gasoline station.

Soil contamination extends across the front of the subject site to the northeast property boundary. Several UST were excavated and removed from the dry cleaning facility (formerly a gasoline station). The former tank pit at the dry cleaning facility was located adjacent to the northeast property boundary of the subject site. Mr. Hall was present during the excavation of the tanks from the dry cleaning facility and reported observing petroleum leaking from the UST as they were raised out of the tank pit.

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This work plan includes the installation of monitoring wells along the upgradient property boundary at the subject site. If these wells confirm that contamination is migrating onto the Hall property, EES does not believe that Mr. Hall should be responsible for 1) determining the upgradient extent of the contaminant plume and 2) delineation of or clean up of the chlorinated organic compound plume. The possibility of contaminant migration from properties upgradient of the subject site could also pose a problem with the installation of a pump and treat groundwater remediation system.

EES proposes to install seven addition shallow groundwater monitoring wells at the locations illustrated on the site plan. Three wells MW-4, MW-5 and MW-6 will be installed along the northeastern property boundary to assess the upgradient extent of the contaminant plume.

Monitoring wells MW-7 and MW-8 will be installed along the southwestern property boundary and MW-9 will be installed within the Department of Transportation (DOT) Right of Way across the street from the subject site. These three wells will be installed to assess the downgradient extent of the contaminant plume. One additional well, MW-10, will be installed adjacent to MW-2 in order to assess the vertical extent of contaminant plume. Well MW-10 will have a 5 foot screen and will be set at 45 to 50 feet below the ground surface.

The newly installed monitoring wells will be developed, purged, and sampled. The groundwater samples will be analyzed for purgeable aromatics and halocarbons (EPA Methods 601 and 602) and polynuclear aromatic hydrocarbons (EPA Method 610).

The top of the well casings and groundwater surface elevations will be measured at each of the monitoring wells relative to an assumed site datum. The groundwater elevation data will be presented in tabular form and a groundwater contour map (illustrating the direction of groundwater flow) will be prepared.

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A report will be prepared describing the work performed, the results of the chemical analysis, and our conclusions. EES can begin field activities within two weeks of receiving approval of this work plan from the North Carolina Division of Environmental Management (DEM). Permission to drill in the DOT Right of Way will be needed to install well MW-9. Field work will take about two weeks to complete. The assessment report can be completed within two weeks of receiving the laboratory results. EES can submit the results of this phase of assessment to the North Carolina DEM within nine weeks of receiving North Carolina DEM approval.

EES will begin making arrangements to drill in the DOT Right of Way. Field activities will be scheduled after receiving North Carolina DEM approval of this work plan. If you have any questions about the work plan or this project, please contact Keith Seramur or Ron Bannister at (704) 328-2991.

Sincerely,

Keith C. Seramur, P.G.
Engineering and Environmental Services

KCS:jsb

pc: Mr. and Mrs. Harold Hall

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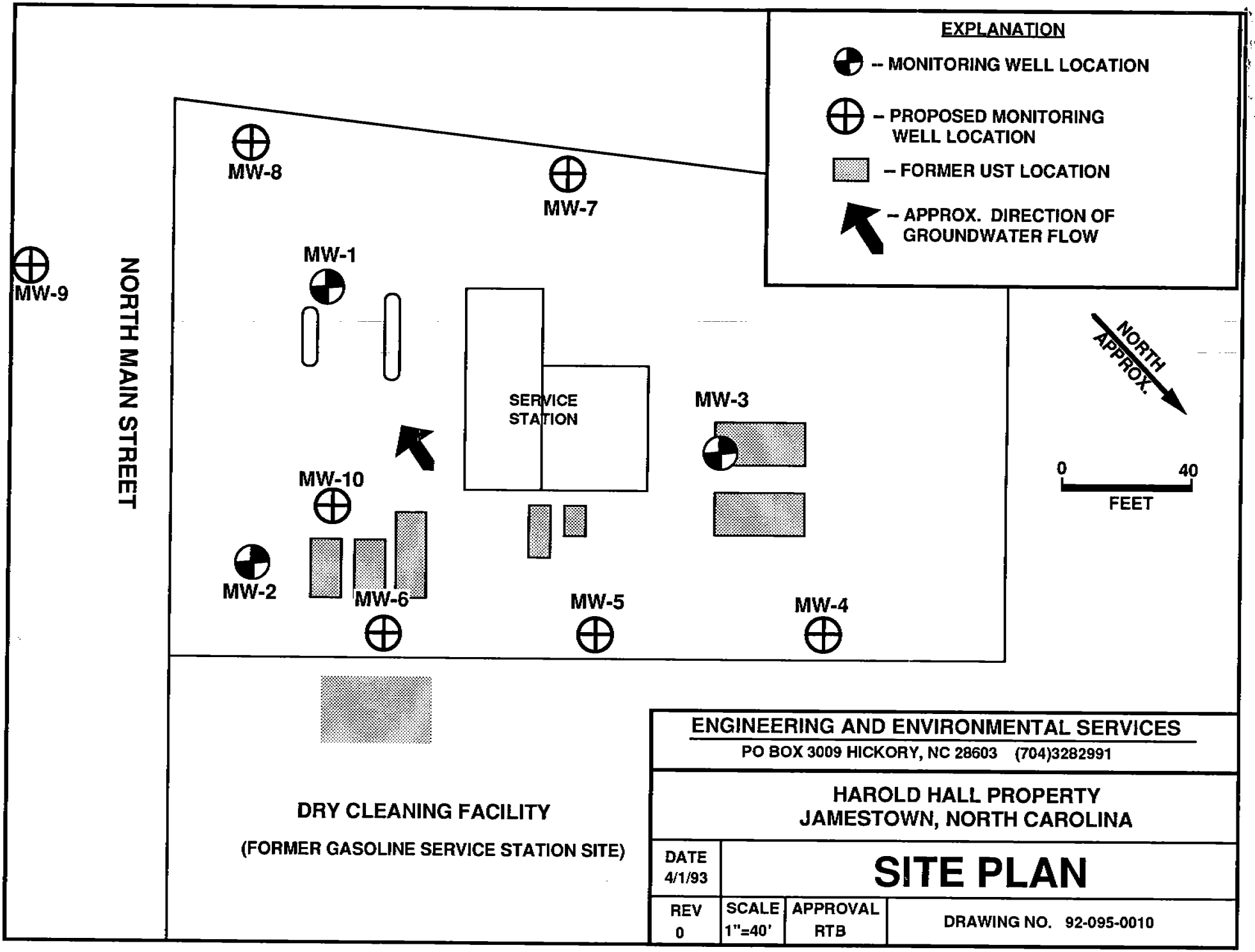

ENGINEERING AND ENVIRONMENTAL SERVICES

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HAROLD HALL PROPERTY
JAMESTOWN, NORTH CAROLINA

SITE PLAN

DATE	SCALE	APPROVAL	DRAWING NO.
4/1/93	1"=40'	RTB	92-095-0010
REV 0			